



# **BUILDING AN INNOVATIVE ENTERPRISE**

## **THE INNOVATION MAP - THE FOUNDATION**

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### **Introduction**

Innovation is the lifeblood of an enterprise. It courses through a vital organization spawning new markets, enlarging existing markets, increasing market share or swelling profits. Innovation is the way of transforming the resources of an enterprise through the creativity of people into new resources and wealth. And, in today's environment, that requires the creation of an innovation commons. Innovation can also reduce costs and increase profitability.

However, I have to be honest with you, innovation is risky. Most innovations fail.

On the other hand, to stay competitive you must innovate. To reduce the risks of innovation, and to reap its great benefits, it must delight your customers. Innovation that delights anticipates customer needs. It flows from a strategy that balances the opportunities and threats in a market, the desires of stakeholders, and the capability and capacity of the enterprise for innovation.

Values, derived from the market, drive the development of the enterprise's resources, focus the organizational culture, and align the enterprise's five innovation enablers, inspiring people to be effective and efficient.

Innovation is dynamic. The need for innovation is a moving target that must be continuously forecast as far into the future as it will take the enterprise to respond. Your foresight has to be greater than your ability to innovate.

Building an innovative enterprise can be your most significant accomplishment for it can live beyond your tenure or even your life.

As incredibly important as innovation is, most people don't know where to begin, or don't think they're doing it well. This article provides information about the foundation of an innovative enterprise - the Innovation Map.

### **Innovation**

"Innovation is the way of transforming the resources of an enterprise through the creativity of people into new resources and wealth."

Innovation - the word can refer to innovating or to the result of innovating.

Way - how an enterprise innovates.

Resources - what the enterprise has to work with - its work, material, relational, intellectual and intangible building blocks



Transforming - how innovation changes the existing resources of the enterprise into new, more and better resources to use for further innovation

People - the people referred to here are people within the enterprise or the people within the framework of the enterprise that constitute an innovation commons.

Creativity - original, productive or generative thought. (The fostering of the creativity of individuals or groups is a separate endeavor outside the scope of this workshop.)

Wealth - wealth is used in its broadest sense, the common weal. Innovation within an enterprise not only makes money for the enterprise, its employees and owners, it raises the level of economic prosperity in the community within which it operates

## **Why Innovate?**

### ***Create new markets***

What do Pez dispensers - those little plastic heads that dole out candy - have to do with one of the most successful Internet business innovations. Pierre Omidyar's fiancée collected them, had a passion for them. He wondered how he could help his girlfriend feed her Pez passion. His idea was to create an online, person to person trading community. His idea blossomed into eBay, the web's premier auction site where more than 2 million members place millions of bids a day on an astonishing variety of items. eBay is credited with transforming everything from classified ads in small town newspapers to the practices of the world's elite auction salons.

eBay, a classic example of network economies, created a new market through a set of innovations. People are not attracted to a market with a small number of items. As the market grows in the number of items and the number of participants, it becomes more attractive. Now, with over 42 million registered users and over 79 million items for sale in 8,000 categories, eBay has exploited the dynamics of the network effect fully.

The first person to build the network has a significant competitive advantage as it becomes more and more difficult for competitors to enter the market.

Matsushita created the market for home bread making machines by creating the technology for automatic home bread machines. They did this by gaining the tacit knowledge of bread making from chefs and automating the process.

### ***Expand existing markets***

Amazon.com expanded the market for books by innovating in the way books were sold and capitalizing on the customer's buying and search patterns. Amazon.com is the leading retailer online. They marketed to the buyers' purchase and search patterns, and they made their customers a participant in the business by encouraging them to write reviews of books they had purchased.



### ***Increase market share***

Matsushita expanded its market share from just over 50% for home rice cookers in Japan to almost 60% while increasing their rice cooker sales by 50%. This was accomplished through innovation in the way the cooker heated the rice that improved the quality of the rice.

### ***Open existing markets***

Hyundai entered the highly competitive and well established U.S. automobile market with innovations in warranty, simple & classic design, quality and low cost.

AMD and IBM entered the microprocessor market dominated by Intel through innovations based on the way the devices worked internally demonstrating competitive advantage on specific applications.

### ***Increase profits***

Profits can be increased by innovations that create new value for the customer. Innovations in pharmaceuticals create real value to the consumer, and quite likely, the physician. They can command an elevated price because of the perceived value to the consumer.

### ***Reduce costs***

Reduction of cost and improvement of quality through incremental innovation is the most common application of innovation, and the least likely to create wealth. It is easily copied and thus, while it offers temporary increase in profitability, the cost reductions usually end up getting passed through to the customer.

### ***Attract & retain the best***

Wal-Mart attracts and retains the best suppliers because of the huge market they have developed. Every vendor wants their products in Wal-Mart and will work to stay a supplier. Wal-Mart built their market through innovations in their distribution system. And, they are now making the next step to improving that system by demanding RFI tags on all pallets of goods.

IBM, when it was at its most innovative era, attracted and retained some the brightest and creative talent to their organization. Their retention rate was extraordinary with turnover rates of a fraction of a percent.

### ***Why Does Innovation Fail?***

Most innovations fail. We don't know the statistics of how many innovations succeed or fail. We have very little information about innovation failure rates because we don't measure enterprises on this factor. Our financial accounting practices, by which we measure the success or failure of a business, blind us to innovation as the real lifeblood of the enterprise.

(I searched for "innovation failure rate" in Google, Yahoo and Kartoo, and found only three or four references in total.)

If at first you don't succeed, you're average. It is the classic innovator's dilemma -- most innovations fail, but companies that don't innovate die.



Innovations fail because we are better at imagining the innovation inside our heads than implementing it.

"Remember, the human body contains nearly 100 million sensory receptors, allowing us to see, hear, taste, touch and smell physical reality. But the brain contains more than 100,000 billion synapses. In other words, you and I are approximately 100,000 times better equipped to experience a world that does not exist than a world that does." - Roy Williams

The successful leader of innovation must be able to imagine not only the innovation, but also the reality of a successfully innovating before it can become a reality. It must be imagined before it can happen. Not only does the leader have to imagine the entire system of innovation working; the people in the enterprise also have to be able to see it in their heads if they are going to do it.

The most common reasons for innovation failure are:

- Not anticipating customer needs.
- Failure to understand and utilize technology appropriately.
- Lack of understanding of competitor capability and strategy.
- Misjudging implementation difficulty.
- Ineffective implementation.
- Timing - too early or too late in the market.
- Being stakeholder driven instead of market driven.
- Not having the resources for implementation.
- Being driven by personal agendas.
- Un-supportive organizational culture, or culture driven strategies.
- Attempting to cause change rather than exploiting change.

"There is nothing more difficult to bring to hand, more perilous to conduct or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions and lukewarm defenders in those who may do well under the new." - Machiavelli

## **Goals for an Innovative Enterprise**

### ***Increase success rate of innovation***

No matter what the success rate is, 1 out of a 100, 1 out of a 1,000, or 1 out of a 1,000,000, the goal is to increase that rate. The difference between an extraordinary enterprise, one that is average or one that is failing is in large part due to its innovation success rate. A very small improvement can catapult an enterprise from failing to extraordinary.

### ***Create wealth***

Never forget that innovation is about creating wealth. Innovation is the way of transforming the resources of the enterprise through the creativity of people into new resources and wealth. Theft, exploitation and greed, among others, may make money for individuals, but they do not create wealth. Innovation creates wealth.

### ***Build a regenerative innovative enterprise***

The goal is to use a system approach to build a regenerative innovative enterprise. If you can get the success rate of innovation high enough, the system will become regenerative.

At the core of any innovation methodology has to be the creativity of the people within the organization, its suppliers and vendors, customers, partners, stakeholders and in some cases, even its competitors.

The enterprise operates on its resources through its projects within the context of its culture in pursuit of innovation. That pursuit generates enhancements to its existing resources, creates new resources and creates wealth.

One of the paradoxes of life is that we learn more from our failures than we do from our successes. This is related to the fact that we operate within paradigms that govern the way we perceive and act. When something succeeds, our paradigm is validated, and little learning takes place. But, when we fail, we have a choice - either reject the failure as an accident or use it as a tool to examine our paradigm. If we choose the latter, we learn.

This is especially true within an organization. The resources are forever altered by the experience of pursuing innovation. Even if the innovation fails, the capital may be reduced, however the people's skills and knowledge have grown, and maybe new tools, equipment, facilities and strategic partners have been developed.

An innovative enterprise creates a "virtuous cycle". A virtuous cycle is a condition in which a favorable circumstance or result gives rise to another that subsequently supports the first - in other words, a positive feedback system. In economics there is an assumption that a complex system will tend to a state of equilibrium. In non-equilibrium condition two cycles can be present - a virtuous cycle or a vicious cycle. A vicious cycle leads to decline and failure. A virtuous cycle leads to growth and wealth. The difference in an enterprise between a vicious and virtuous cycle is determined by the initial conditions, the innovation success rate and the percentage of resources reinvested in the creation of more innovation.

### **Types of Innovation**

One of the problems that the management of innovation has faced over the years is a vocabulary of innovation with consistent definitions. To manage innovation effectively, the leader has to understand the different types of innovation. There are two different areas of innovation - class and nature. Each area has three different dimensions of innovation that when combined in a matrix produces nine different types of innovation.

The class of innovation:

**Incremental.** An innovation which provides modest improvements in performance and/or profitability. Allows goods or services to be produced faster, cheaper, better, more reliably, etc.



**Distinctive.** An innovation, which significantly improves performance and/or profitability, but is not based on an approach fundamentally different from those presently being used. Typically serves as a foundation for a number of incremental innovations.

**Breakthrough.** An innovation based on a fundamentally different approach than those presently being used. Allows one to perform task that could not be performed at present, or to perform a present task in a markedly improved manner. Typically serves as a foundation for a number of distinctive innovations.

As an example consider the integrated circuit. The development of the first integrated circuit was a breakthrough innovation. It enabled a whole new set of innovations that can be visualized as a family tree. After the introduction of the first integrated circuit, there were many other ICs, undeniably ICs, but distinctively different for the first IC. These are distinctive innovations. On each of the distinctive innovations there have been many improvements. These are incremental innovations.

The nature of innovation:

**Product.** The product or service provided to customers (external or internal). Examples include improvements in machinery, consumer goods, software, automobiles, etc. These innovations typically involve new and attractive features. A product innovation involves the way things interact with other things. Sometimes called technological innovation.

Example: a home bread maker

**Process.** The way a product is produced or a service is provided. Examples include improvements in distribution systems, software programming systems, etc. These innovations reduce lifetime cost of the product/service and improve their quality. A process innovation involves the way people interact with things.

Example: UPS innovations in distribution process. Companies like Dell integrated UPS's innovation into the way they do business providing an enhanced service.

**Procedure.** The way in which products/processes are integrated into the operations of the organization. Examples include improvements in advertising programs, repair and maintenance service, and reaction times. These innovations contribute to the customer's comfort in that the product/service is well supported before and after purchase. A procedure innovation involves the way people interact with other people.

Example: Dell's system of ordering computers via the Internet, which when combined with other procedure and process innovations, make Dell the leading PC company.

### **Innovation Map**

When The Class and Nature of innovation are combined into a matrix, they describe nine types of innovation. This is called an innovation map.

Examples (all from auto industry):

Breakthrough product - Cugnot's steam powered tricycle

Distinctive product - Ford's Model T, and all the subsequent models

Incremental product - the addition of power steering

Breakthrough process - Ford's assembly line

Distinctive process - robotics

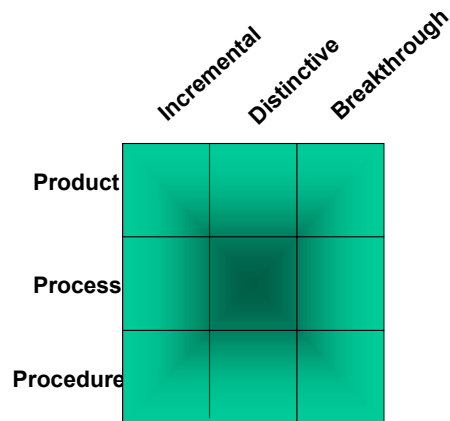
Incremental process - quality control

Breakthrough procedure - Ford's pricing of cars so that people who worked in his factories could afford to buy them (the invention of the consumer market)

Distinctive procedure - GM's choice of many different models and styles

Incremental procedure - different financing methods

There are several observations to make about this matrix - the innovation map:



This is a complete set. Every innovation related to enterprise can be classified as one of these nine types of innovation.

Innovation is not just for R&D. there's a role for everyone in the enterprise in one or more of these nine different types of innovation.

There's more to innovation than just technological or product innovation. There's a lot of money to be made in process and procedure innovation. In today's environment (for the next 15 to 16 years) most of the

real money will be made in these areas.

What customers want is not one of these nine different types of innovation, but a pattern of innovations.

Competitors attempt to differentiate themselves by the pattern of innovation they project to the market.

## Conclusion

Master the innovation map as a tool for understanding the market and its future, your competitor's strategies and your enterprise's innovation capability, and you've got the foundation for an innovative enterprise.

## About the Author

Paul Schumann is a cofounder of Glocal Vantage, Inc. ([www.glocalvantage.com](http://www.glocalvantage.com)), an innovation consulting firm in Austin, Texas USA. He is the editor and publisher of an online magazine devoted to the development of creativity and innovation in organizations - The Innovation Road Map Magazine ([www.theinnovationroadmap.com](http://www.theinnovationroadmap.com)). He is the founder and facilitator of the Innovation Commons Network ([www.innovationcommons.net](http://www.innovationcommons.net)) - a group of individuals seeking to understand the principles of an innovation commons. And, he is



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